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ABSTRACT

Evaluation is important to public education and training programs if the United States is to be competitive in a global economy. Six major factors have had an impact on evaluation efforts: decreased financial resources, increased public dissatisfaction, changed management approaches, enhanced evaluation methods and procedures, redesigned organizations, and increased privatization efforts. Today, three strategies are being used for evaluating educational programs, and they are likely to continue to be used into the next century. These strategies are outcome assessment, performance assessment and measurement, and value-added assessment. Ten recommendations are offered to improve evaluation efforts: (1) build a commitment to conducting high-quality evaluations; (2) develop individuals' evaluation capacity; (3) foster a clearer understanding of mission, customers and their needs, and desired results; (4) find a closer link between performance measures and the outcomes that they asses; (5) focus programs on a limited number of outcomes for which they will be accountable; (6) programs should not avoid having outcomes that are difficult to measure; (7) strengthen the systems and processes for generating and using financial and program information in conducting program evaluation; (8) use greater innovation and creativity in developing evaluation and accountability techniques; (9) develop more efficient and cost-effective evaluation and assessment techniques; and (10) keep politics out of the process. (Contains 24 references.) (KC)

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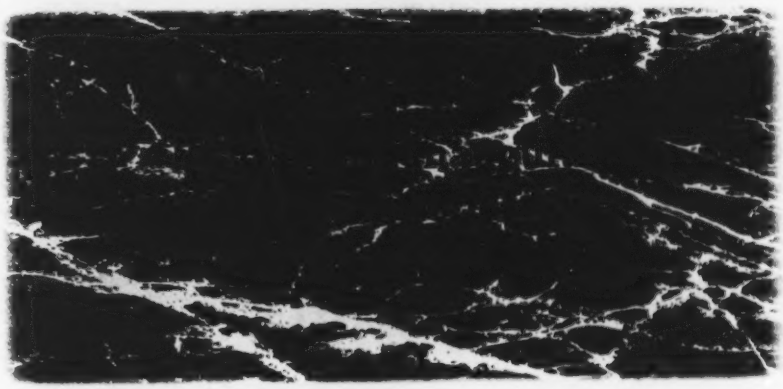
Evaluation: An Imperative For Public Education And Training Programs

by
Professor N. L. McCaslin



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Foreword

Achieving the rank of Professor in a major research university signifies the professional maturity of the scholar and gives the individual full rights as a member of the academy. Promotion to Professor is a noteworthy event.

Therefore, when a person is named Professor, that accomplishment should be marked by offering a significant work of scholarship as a contribution to the discipline. The Department of Agricultural Education at The Ohio State University established the "Professional Inaugural Lecture Series" in 1988 to provide a forum in which such a scholarly work can be presented. This series also is designed to provide signal recognition to the new Professor.

This paper, prepared by N. L. McCaslin, is the second in the series.

—R. Kirby Barrick
Chair

Evaluation: An Imperative For Public Education And Training Programs

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Professor N. L. McCaslin
Department of Agricultural Education

Professorial Inaugural Lecture Series
The Ohio State University
October 30, 1995

Evaluation: An Imperative For Public Education And Training Programs

Professor N. L. McCaslin

Developing a strong internationally competitive economy depends, in part, on preparing workers to compete in the work force. Our country has invested considerable resources in public education and training programs designed to assist individuals with the process of work force preparation. These formal and informal programs are offered through agencies such as secondary schools, community and technical colleges, and colleges and universities. They range from short-range job upgrading activities to long-range graduate education and result in certificates, diplomas, degrees, and licenses designed to verify competence. Familiar examples of these programs include vocational education programs offered by secondary schools and community and technical colleges, degree programs offered by The Ohio State University on its various campuses, programs conducted by the Ohio State University Extension, and Job Training and Partnership Act (JTPA) training programs offered for at-risk individuals or displaced workers. Education and training programs also are offered in the private sector through groups such as proprietary schools, businesses, and industries. Examples include certificate and degree programs offered by private schools and colleges as well as training, upgrading, and retraining activities offered by business and industry.

As we think about the future of these programs and how they might be improved, I am reminded that in less than five years, a new millennium and a new century will arrive. Cetron and Davies (1989) indicated that ". . . the end of one century and the beginning of another is a time when creativity flows with special freedom" (p. 317). They argue that, for some unknown reason, this end-of-century phenomenon provides the momentum or spontaneity for developments that no one could have predicted.

Today, I would like to share some thoughts about evaluation efforts for public education and training programs as we approach the 21st century. First, I will identify six major factors that have had an impact on evaluation efforts. Next, I will discuss three evaluation strategies that are currently being advocated and likely to continue through the next decade. I will conclude with some recommendations for improving evaluation efforts related to public education and training programs.

Factors That Have Had an Impact on Evaluation

Never in the history of the United States has evaluation of educational programs received more attention than today. Since the release of the National Commission on Excellence in Education's (1983) *A Nation At Risk: The Imperative for Educational Reform*, there has been a profusion of reports critical of the quality of education in this country. These reports include: *The Forgotten Half: Non College Youth in America* (The William T. Grant Foundation Commission on Work, Family and Citizenship, 1988); *America's Choice: High Skills or Low Wages!* (Commission on Skills of the American Workforce, 1990); *America 2000: An Education Strategy* (U. S. Depart-

ment of Education, 1991); *What Work Requires of Schools: A SCANS Report for America 2000* (Secretary's Commission on Achieving Necessary Skills, 1991); *Education Counts* (Special Study Panel on Education Indicators, 1991); and *Learning a Living: A Blueprint for High Performance* (Secretary's Commission on Achieving Necessary Skills, 1992). These studies have called for major changes in the way we plan, deliver, and evaluate our educational programs. They also stressed the gap between the demands of the future and the present level of preparedness of America's youth and adults to meet these requirements.

Six major factors have influenced evaluation efforts related to public education and training programs. These major factors include: decreased financial resources, increased public dissatisfaction, changed management approaches, enhanced evaluation methods and procedures, redesigned organizations, and increased privatization efforts.

Decreased Financial Resources

There has been increased competition for funding at the local, state, and federal levels. At one time education was a major user of tax funds. Today, competition for these scarce resources comes from agencies such as law enforcement, social services, transportation, health, employment services and the list goes on.

Pressures are increasing to reduce the federal deficit. These pressures have resulted from "the Republican Congress's election pledge and the Democratic president's new resolve to eliminate the federal budget deficit" (Jennings & Stark, 1995, p.1). The U.S. General Accounting Office (1993) reported that moving from a deficit to a budget surplus is essential to improve national savings, private investment, and long-term economic growth. The report went on to say that reducing the federal budget deficit is a vital action that needs to be taken if future workers are to be able to support a larger number of retirees. If efforts are not taken to reduce the deficit it will increase to 20 percent of gross national product (GNP) principally due to rising health, retirement, and the associated interest costs. Because of these actions, many federal, state, and local programs have received severe budget cuts or been eliminated.

Increased Public Dissatisfaction

Second, the public and policy makers often are unclear about what they are getting for their money and demanding stricter accountability for the resources expended. The public has lost faith in many organizations and institutions, questioned program effectiveness, and pressed for programs that are more responsive to the needs of society. This has resulted in numerous calls to "do more with less" and "no more business as usual." Schools and other educational agencies are being asked to strive for excellence and produce individuals who will become world-class workers at lower costs and with greater effectiveness.

Changed Management Approaches

Third, at the federal level the focus of management and accountability has moved from an emphasis on inputs and processes to a greater focus on the outcomes that are being achieved. All too often public education and training programs have been viewed as being of poor quality, high cost, and low productivity. In today's environment these characteristics cannot be tolerated and the federal government has enacted legislation to mandate more accountability. Performance

standards and measures were first adopted as an instrument of national human resource policy with the passage of the Job Training Partnership Act (JTPA) of 1982. The measures developed for these programs included: placement and retention in unsubsidized employment, earnings, and reduction in public assistance. The Carl D. Perkins Vocational and Applied Technology Education Act of 1990 required states to develop core standards and measures of performance for secondary and postsecondary vocational education programs. These performance measures were to include learning and competency gains in basic and more advanced academic skills and at least one or more measure(s) of performance including competency attainment, job or work skill attainment or advancement; retention in school or completion of secondary school; and placement into additional training or education, military service or employment. The Government Performance and Results Act (GPRA) requires each agency to submit a strategic plan to the Office of Management and Budget (OMB) and Congress by September 30, 1997, covering program activities for at least five years; an annual program performance plan to OMB beginning in FY 1999; and an annual program performance report to the President and Congress beginning in 2000 that covers the previous fiscal year.

Enhanced Evaluation Methods and Procedures

Fourth, there have been increased efforts to improve program evaluation. Over the past two decades, a total of 16 professional education associations have worked together to develop a set of 30 standards that identify principles that, when addressed, should result in improved evaluations of educational programs, projects, and materials (The Joint Committee on Standards for Educational Evaluation, 1994). The standards were first published in 1981 and revised in 1994. These standards were developed around four attributes: utility, feasibility, propriety, and accuracy. The utility standards were designed to ensure that evaluations would serve the information needs of intended users. The feasibility standards were to help evaluations to be realistic, prudent, diplomatic and frugal. The propriety standards were designed to see that evaluations were conducted legally, ethically, and with due regard for the welfare of those involved in the evaluation and those affected by its results. Finally, the accuracy standards were to ensure that an evaluation will reveal and convey technically adequate information about the features that determine worth or merit of the program being evaluated. Additionally, groups such as the National Science Foundation (Frechtling, 1995) have sponsored papers and conferences designed to propose new and innovative evaluation methodologies that could help improve both educational programs and evaluations. These new initiatives should be both cost-effective and feasible. Also, greater attention should be given to breaking down the barriers between quantitative and qualitative methodologies.

Redesigned Organizations

The world has changed dramatically in the past few years and so have the needs and expectations of the people. The United States has quickly moved from a producer to a consumer economy. Others have characterized this shift as moving from the industrial to the information age. In moving to this new type of environment, many organizations finally are asking their clients and customers what their needs are rather than telling them. Consequently, these organizations are undergoing a dramatic redesign of their operations. To some it is viewed as "reinventing," to others it is "downsizing," and yet to others it is viewed as "rightsizing." Much of this redesign is the result of feeling that organizations have become too large, insen-

sitive, unresponsive, and costly. For example, The Ohio State University President E. Gordon Gee, in his speech at the Project Reinvent Symposium (October 11, 1994), said that ". . . Ohio State cannot be all things to all people." He went on to say that ". . . I often feel like Noah, with two of everything around this place. Not any more."

Typically these redesign efforts have taken radical thinking about "what an organization should do" and "how it should be done." A former colleague, now deceased, used to remind me "if we keep on doing what we're doing, we're going to keep on getting what we've got." We need more flexible, entrepreneurial, decentralized organizations to meet the societal needs of the 21st century.

Increased Privatization Efforts

Another major force influencing evaluation is the attempt to privatize many public programs such as education and training. This force is based on the view that competition will increase quality and productivity and decrease cost. It is further supported by the opinion that the private sector can do it better, faster, and at less cost. Much of this view is based on the premise that public programs are too antiquated, wasteful, duplicative, unfocused and bureaucratic. A recent study by the U.S. General Accounting Office (1994) found that there were 154 employment and training programs operated by the Federal Government. Efforts to privatize public efforts have been seen in the U.S. Postal Service and similar efforts are being considered for the National Aeronautics and Space Administration.

Evaluation Strategies

As can be seen from the previous section, educational agencies of all types are under increasing pressures to become more accountable. This accountability is being required in the form of programs that better meet the needs of its constituency, have more effective educational processes, and result in higher levels of achievement and competence. This section will address three specific strategies currently being used for evaluating educational programs: outcome assessment, performance assessment and measurement, and value-added assessment.

Outcome Assessment

Outcome assessment refers to "evaluative processes that determine the results of education at the institutional, program, and student level" (Bragg, 1992, p. iv). At the institutional level, outcomes assessment is often viewed as part of an institutional effectiveness evaluation (Alfred & Kreider, 1991; Nichols, 1991; Seybert, 1990). As such, the results of outcome assessments often impact areas such as institutional decision making, strategic and tactical planning, organizational administration, staff development, and curriculum development. Examples of outcomes assessments at the institutional level include graduation or completion rates, continuing education rates, client satisfaction with services received, usefulness of management information systems, impact of collaborative activities, and results of efforts to redesign or "reinvent" organizations.

Program outcomes, sometimes referred to as functional-area outcomes (Alfred & Kreider, 1991), provide an indication of the success of an organized sequence of courses and services. Examples of program outcomes include placement rates, students' satisfaction with their program of study or major, employer satisfaction with program graduates or completers, and number of student hours generated.

Student outcomes are those associated with changes that occur in students or clients of an educational experience. These outcomes include those such as the knowledge of a subject, abilities or skills learned, attitudes developed, and higher-order thinking or problem solving skills.

Performance Assessment and Measurement

Performance assessment has been defined as "the process of estimating the value of or describing the performance attributes of or products created by an individual or a group" (Wheeler & Haertel, 1993, p. 1). Other terms that are often used to describe performance assessment include alternative assessment, authentic assessment and direct assessment. Mabry (1992) distinguished among these terms as follows:

- Performance assessment signals that something students actually *do* is being evaluated.
- Alternative assessment signals that evaluation is based on something *other than* standardized testing or similar formats.
- Authentic assessment signals that assessment tasks presented to students elicit worthwhile responses reflective of *real or real-world* competence.
- Direct assessment signals that the evaluation focuses on what we *want* to measure rather than a proxy for it (p. 110).

Performance measurement has been defined as "a process by which a program objectively measures how it is accomplishing its mission through the delivery of products, services, or processes" (Financial Management Service, 1993). Performance measurement consists of five phases: strategic planning, creating indicators, developing a data measurement system, refining performance measures, and integrating with management processes. The Government Performance and Results Act of 1993 (GPRA) requires that federally funded agencies develop and use performance measurement in implementing an accountability system. The use of performance measurement, according to GPRA, includes setting goals and objectives and then measuring progress toward their achievement. Currently, 71 pilots are under way across most federal agencies and range from individual programs to entire agencies. The Social Security Administration, the Internal Revenue Service, and the Defense Logistics Agency are examples of entire agencies that are piloting GPRA's performance planning and reporting requirements. Within the Department of Agriculture, the Cooperative State Research, Education and Extension Service (CSREES) is implementing the provisions of the GPRA by grouping their 55 budget lines into the following program activity areas:

- Agriculture
- Natural Resources and Environmental Management
- Nutrition, Diet and Health
- Community Resources, Economic Development, and Family Resource Management
- Family, Children and Youth Development
- Research and Education Capacity Building

Value-Added Assessment

Value-added assessment has been defined as the positive differences that an educational experience makes in a student's knowledge, attitudes and skills (Northeast Missouri State University, 1984). This approach to evaluation and accountability stresses the use of measurement about the attainment of outcomes and using instrumentation such as standardized tests, performance samples, essays, departmental exams, interviews and surveys to monitor student progress. Using these types of instruments, measurement is taken when a student first enters an institution, major, program, or course. These initial measurements can be very helpful in diagnosing students' needs, enabling students to understand the rationale for a curriculum, assessing the amount of improvement students must make, and providing a baseline for the comparison of later performance. Measurements are again taken as students progress through or leave an institution, major, program or course. The information collected as individuals pass through an institution, major, program, or course can provide important feedback on their progress. Information collected at the end of an educational program may also be used to certify competence. The value-added approach to evaluation and accountability can also provide information regarding the influence of an organization's actions upon desired outcomes. The comparison of later scores with those obtained at entry is what establishes it as a value-added approach.

Well-managed organizations measure their performance and then they compare themselves with the best organizations of their type in benchmarking efforts. Benchmarking is the continuous process of measuring one's own products, services, and practices against the world's toughest competitor—or those recognized as leaders in the particular aspect you're studying—to identify areas for improvement (Ford, 1993). What would you find if you used benchmarking to examine training efficiency using the training costs per student hour; training results using the average percent gain in learning per course; training results using average percent of improvement in on-the-job performance after training; or training activity using average training hours per employee?

Suggestions for Improving Evaluation Efforts

As we approach a new century and millennium, it is appropriate for us to consider what might be done to offer the best possible programs, be more accountable, and help build the work force for the 21st century. Listed below are ten recommendations for improving our evaluation efforts.

1. We need to build commitment to conducting high quality evaluations and then use this information for accountability and program improvement efforts. Efforts must be undertaken to recognize and communicate the benefits of evaluation. Better understanding of and closer working relationships with planning and evaluation need to be established. All too often evaluation is only thought of as a program or activity is ending. Program operators and educators are often wary of evaluation and accountability efforts. They fear that they may be held responsible for outcomes over which they have little or no control. People often view evaluation positively only when someone else or another person's program is being evaluated. Program administrators and policy makers sometimes fail to follow through with evaluation recommendations to alleviate problems or reward individuals and programs that achieve at high levels.

2. If we are to have the valid and reliable information required to improve education and training programs we need to develop individuals' evaluation capacity—knowledge, skills, and attitudes. Organizations that fail to improve themselves will not remain viable. Individuals must develop the ability to use multi-methods in conducting evaluations. These multi-methods should include both quantitative and qualitative techniques. Individuals need to know how to involve stakeholders in identifying important evaluation questions. Greater skill is also needed in learning to state outcomes, goals, and objectives with more precision and then to select appropriate measures.

3. A clearer understanding of mission, customers and their needs, and desired results need to be fostered. Mission statements indicate why an organization exists in results-oriented terms. Organizations without clear formal mission statements tend to lack focus and direction. As Socrates said, "For a man [sic] without an intended port, no wind is favorable." Mission statements also need to be clearly understood by all.

Once the mission statement is developed, the clients and customers need to be contacted to find out their needs. Organizations often think that only they know what is best for their clients and customers. It is usually quite difficult for organizations to change and pressures generally have to come from the outside. The experiences of the American automobile industry in the 70s and early 80s showed how easy it is to misjudge customer needs. We need to listen and respond to our clients and customers and then keep checking back with them to see how well we're doing in meeting their needs.

4. A closer link is needed between performance measures and the outcomes that they assess. We need to measure what matters. In this way we can find out the degree to which strategic goals are being met. It also helps to gauge the impact a program's products or services are having. In this process, organizations will need to address multiple priorities—customer satisfaction, standards of quality, and cost limitations. Also, an organization should continuously compare its results with those obtained by the top organizations of their type. In reaching the goal of decreasing costs, an organization must also be cognizant of the possibility of reducing customer satisfaction.

5. Programs and activities should focus on a limited number of outcomes for which they will be accountable. A program cannot be "all things to all people." By limiting the number of outcomes, greater clarity can be achieved regarding the role and function of a program. Too many outcomes tend to confuse the target audience and the public and policy makers who are responsible for providing the funds to operate them. The program outcomes should be selected based on broad based input from program stakeholders. However, program operators also need to recognize that multiple stakeholders can make it difficult to reach consensus on the most important outcomes.

6. Programs should not avoid having outcomes that are difficult to measure. Measuring the outcomes of a research program whose results may not be evident for 20 years still should be addressed. Similarly, the investments in people may not have immediate payoff. However, simply because something is difficult, or takes a long time to measure, should not serve as a "copout" for failing to address the outcome.

7. The systems and processes for generating and using financial and program information in conducting program evaluation need to be strengthened. Greater attention also needs to be given to developing a more efficient and effective system of oversight without adding cumbersome bureaucracy. However, administrators and faculty also need to be given greater flexibility, discretion and authority and then held accountable for achieving their desired results. Some schools and colleges are "guaranteeing their graduates." If they are unable to meet the expectations of their employers, the educational agencies will retrain them at no charge. This type of accountability also has been called for in the United Kingdom. For example, if the post office fails to deliver a special delivery item on time, the customer is to be refunded twice the fee paid—or a book of first-class stamps—whichever is greater. Without such accountability it becomes too easy for individuals in an agency to accept poor performance or blame someone else.

8. Greater innovation and creativity are needed in developing evaluation and accountability techniques. Gabel (1995) recently questioned why there was not more challenge to the legitimacy of standardized tests such as the Scholastic Aptitude Test (SAT), The Graduate Record Examination, and Civil Service exams. He went on to say that: "As far as I can tell, the answer is that the vast majority of people actually believe that these tests are measures of intelligence, ability, aptitude, and merit, while being secretly humiliated by their own test scores" (p. B5). Some examples of evaluation and assessment techniques that could be pursued include the use of techniques such as portfolios, performance assessments, product evaluations, and interviews.

9. More efficient and cost-effective evaluation and assessment techniques also need to be developed. Robert Hoffman, agricultural education instructor at Bellevue (Ohio) High School, said (personal communication, July 10, 1995) that he lost a total of 22-24 days (out of 180) due to testing activities (e.g., proficiency testing, Work Keys, Occupational Competency Analysis Profiles, Preliminary Scholastic Aptitude Test) in the 1994-95 school year. Testing is necessary but we need to spend more time developing knowledge, skills, and attitudes with built-in testing and assessment activities. The pressures to decrease costs also calls for increasing the efficiency with which we collect evaluation and accountability information.

10. Finally, we need to try to keep politics out of the picture. We cannot just be looking for the "quick fix" or the "magic bullet." Most of these efforts will take time and energy to complete them. We need to develop more tolerance and patience as we seek to develop world-class education and training programs.

I believe that these actions are essential if we are to develop the type of education and training programs that will be required in the 21st century. The actions will not be easy and we need to seize the opportunity to plan, conduct and use evaluation that will result in programs tailored to societies needs, delivered more effectively, and conducted with greater efficiencies. I am reminded of an ancient Chinese proverb, "A voyage of a thousand miles begins with a single step." I invite you to begin this journey with me.

References

Alfred, R., & Kreider, P. (1991). Creating a culture for institutional effectiveness. *Community, Technical, and Junior College Journal, 61*(5), 34-39.

Northeast Missouri State University. (1984). *In pursuit of degrees with integrity: A value added approach to undergraduate assessment*. Washington, DC: American Association of State Colleges and Universities.

Bragg, D. D. (Ed.). (1992). *Alternative approaches to outcomes assessment for postsecondary vocational education*. Berkeley: University of California at Berkeley, National Center for Research in Vocational Education.

Cetron, M., & Davies, O. (1989). *American renaissance: Our life at the turn of the 21st century*. New York: St. Martin's Press.

Commission on Skills of the American Workforce. (1990). *America's choice: High skills or low wages!* Rochester, NY: National Center for Education and the Economy.

Frechtling, J. A. (Ed.). (1995). *Footprints: Strategies for nontraditional program evaluation*. Arlington, VA: National Science Foundation.

Financial Management Service. (1993). *Performance Measurement Guide*. Washington, DC: Author.

Ford, D. J. (1993). Benchmarking HRD. *Training and Development, 47*(6), 36-41.

Gable, P. (1995, October 13). The S. A. T. is structured to test meaningless thought. *The Chronicle of Higher Education*, p. B5.

Gee, E. G. (1994, October 11). Change at The Ohio State University. A speech presented at the Project Reinvent Symposium. The Ohio State University, Columbus, OH.

Jennings, J., & Stark, D. (1995, September). Congress targets education for cuts. *Phi Delta Kappa Washington Newsletter, 5*(1).

Mabry, L. (1992). Performance assessment. In Bragg, D. D. (Ed.), *Alternative approaches to outcomes assessment for postsecondary vocational education*. Berkeley: University of California at Berkeley, National Center for Research in Vocational Education.

National Commission on Excellence in Education. (1983). *A nation at risk*. Washington, DC: U.S. Department of Education.

Nichols, J. O. (1991). *A practitioner's handbook for institutional effectiveness and student outcomes assessment implementation*. New York: Agathon Press.

Secretary's Commission on Achieving Necessary Skills. (1991). *What work requires of schools: A SCANS report for America 2000*. Washington, DC: U.S. Department of Labor.

Secretary's Commission on Achieving Necessary Skills. (1991). *Learning a living: A blueprint for high performance*. Washington, DC: U.S. Department of Labor.

Seybert, J. (1990). Assessing institutional effectiveness in community colleges: What to measure and how to start. *Institutional Effectiveness in Focus, 1*(1), 1, 5.

Special Study Panel on Education Indicators. (1991). *Education counts*. Washington, DC: National Center for Education Statistics.

The Joint Committee on Standards for Educational Evaluation. (1994). *The Program Evaluation Standards* (2nd ed.). Thousand Oaks, CA: Sage Publications.

U.S. Department of Education. (1991). *America 2000: An education strategy.* Washington, DC: Author.

U.S. General Accounting Office. (1993). *Budget Policy: Federal Capital Budgeting.* Washington, DC: Author.

U.S. General Accounting Office. (1994). *Multiple employment training programs: Overlap among programs raises questions about efficiency.* Washington, DC: Author.

Wheeler, P., & Haertel, G. D. (1993). *Resources handbook on performance assessment and measurement: A tool for students, practitioners, and policymakers.* Berkeley, CA: The Owl Press.

William T. Grant Foundation Commission on Work, Family and Citizenship. (1988). *The forgotten half: Pathways to success for America's youth and young families.* Washington, DC: Author.